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REPORT NO. 4

Cotton Fiber and Processing Test Results

CROP of

1973



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 October 12, 1973

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1973

Discussion of Test Results

Cotton Division laboratories of the Agricultural Marketing Service report short staple average fiber length to date to be longer from the Southwest than a year ago. Fiber uniformity is higher than a year ago. Fiber strength at zero gage is weaker. Shirley analyzer nonlint content and picker and card waste are higher than last year. Yarns spun from these samples show the average yarn skein strength to be stronger. Yarn appearance index is lower than a year ago. Samples tested to date show fewer imperfections. Average spinning potential yarn number is lower.

Medium staple samples tested from the Southwest show average fiber length to be longer than through the same period last year. Fiber strength is weaker at zero gage than a year ago. Shirley analyzer non-lint content and picker and card waste are lower than last season. Yarns spun from these samples are weaker and show a lower appearance grade than last year. Yarn imperfections are higher than a year ago. Average spinning potential yarn number is lower than a year ago.

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This is the fourth of a series of reports of fiber and processing test results from the 1973 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1972", May 1973. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States
1/
through October 5, 1973

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results				
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections		
		No.	Inches	Pct.	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.	Yarn No.
Short Staple: Southwest: 1972 1973	12	0.98	45	4.3	83	21	3.0	5.9	96	118	24	49	
	6	1.01	47	4.4	80	21	4.2	6.4	101	110	22	44	
Medium Staple: Southwest: 1972 1973	24	1.06	46	4.5	84	22	2.9	6.0	103	121	22	63	
	18	1.08	45	4.5	80	22	2.4	5.2	99	99	24	60	
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1973

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple 32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential	
				2.5% span	Unif		Zero Gage	1/8" Gage			Pct	No		Yel	Gra	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx		8s or 74 tx
						In			Pct	Rdgr			Mpsi										
SOUTHWEST AREA																							
CENTRAL TEXAS																							
TAYLOR																							
2	LM	51	32	0.99	47	4.5	80	21	6.3	4.9	3	3	6.2	312	97	7.5	6.8	130	120	35	25	44	
LANARK LX 571																							
95 PERCENT																							
WACO																							
1	SLW	41	32	1.03	46	4.4	88	22	5.8	2.9	2	4	5.3	344	112	7.6	7.0	130	120	18	14	46	
2	SLW	41	33	1.06	47	4.4	87	21	6.1	3.8	2	3	6.7	346	114	7.7	6.6	130	120	22	17	49	
LANARK LX 571																							
95 PERCENT																							

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1973

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Style	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		
				32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No		No
SOUTHWEST AREA																							
SOUTH TEXAS																							
DANFVANG																							
2	LN	51	34	1.08	45	4.6	83	21	6.1	3.7	4	3	6.7	93	30	5.4	3.6	110	80	23	16	55	
SEFASTIAN																							
3	SLW LT SP	42	34	1.07	44	4.5	75	22	6.9	2.9	3	3	5.7	95	30	6.0	3.8	100	80	23	16	56	
CENTRAL TEXAS																							
BATESVILLE																							
2	SLW LT SP	42	35	1.11	46	4.4	77	22	6.5	2.8	4	4	5.3	104	36	6.0	4.8	100	80	25	20	60	
CRCKETT																							
1	SLW	41	34	1.05	47	4.6	85	23	5.8	1.8	2	3	3.6	104	34	6.0	4.1	120	90	18	12	58	
ROSENBERG																							
1	SLW LT SP	42	34	1.07	46	4.9	84	22	5.0	2.5	4	4	5.5	93	28	5.2	3.7	100	80	30	27	51	

